

TRAFFIC STUDY

For

Fallbrook Oaks

~~(TM 5449, GPA 05-008, REZ 05006, R 15-015, STP 07-009,
TM 5449)~~

In the County of San Diego

Submitted To:

Keystone Communities

Submitted By:

Darnell & Associates, Inc.

Revised: December 17, 2007

Revised: August 27, 2007

Revised: June 15, 2005

Original: August 11, 2005

Darnell & ASSOCIATES, INC.
1446 Front Street, Suite 300, San Diego, California 92101
619-233-9373 619-233-4034 FAX

ENGINEERING & PLANNING Transportation, Traffic, Municipal, Transit

FAX TRANSMITTAL

TO: Keystone Communities 5333 Mission Center Road, Suite 360 San Diego, CA. 92108	DATE: December 17, 2007, PROJECT #: 050702
ATTN: Mark Real	
SUBJECT: Traffic Impact Study for the proposed Fallbrook Oaks project.	

THE FOLLOWING ITEMS ARE TRANSMITTED:

AT YOUR REQUEST
FOR SUBMITTAL

FOR YOUR REVIEW

FOR YOUR INFORMATION

Sent Via Overnight Courier

Sent Via Regular Mail /Faxed Documents

☐ Sent Via Courier

☐ Hand Delivered

☒ To Be Picked Up By Recipient

Enclosed please find the following: Five (5) Bound and One (1) Unbound copies of the subject document.

REMARKS:
Thank You.


Joy McDonald, Office Manager

SIGNATURE	DATE:
SHIPPED:	

Darnell & ASSOCIATES, INC.

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

~~December 17~~ August 27, 2007

Mark Rael
Keystone Communities
5333 Mission Center Road, Suite 360
San Diego, CA 92108-1350

D&A Ref. No.: 050702

Subject: Traffic Impact Analysis for the Proposed Fallbrook Oaks Project (GPA 05-008, REZ 05-015, STP 07-009, TM 5449) Located at the Northwest Corner of Reche Road and Ranger Road in the Fallbrook Community of the County of San Diego.

Dear Mr. Rael:

In response to the County of San Diego's ~~December 14~~ July 17, 2007 comment letter, Darnell & Associates, Inc. (D&A) has revised our ~~August 27, 2007~~ June 15, 2006 traffic impact analysis for the subject project. A copy of our written responses to the County's comments is provided directly behind this letter as well as in Appendix G.

This report analyzes the traffic impacts associated with the proposed project on local roadways and intersections, including existing, existing plus project and cumulative conditions. This report also addresses the Transportation Impact Fee (TIF) Ordinance adopted by the County of San Diego in April 2005.

If you have any questions, please feel free to contact the office.

Sincerely,

DARNELL & ASSOCIATES, INC.



~~Vonessa Stanfill~~
~~Junior Engineer Planning Aide~~

A handwritten signature in black ink that reads "Bill E. Darnell".

Bill E. Darnell, P.E.
Firm Principal
RCE 22338

Date Signed: 12/17/07

BED/vsh/st/vls
050702--Fallbrook Oaks ~~Rpt4-(December)~~ Rpt3 (August 2007)

Darnell & ASSOCIATES, INC.

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

December 17, 2007

To: Mark Rail
Keystone Communities

FROM: Bill Darnell



D&A Ref. No: 050702

Subject: Fallbrook Oaks Project (TM 5445) Responses to County of San Diego Comments dated December 14, 2007.

Darnell & Associates, Inc. (D&A) have reviewed the County's Comments and revised the report to respond to the comments. The following are our responses to the Comments dated December 14, 2007.

Comment 1.) We find the traffic study to be acceptable provided that it discusses/incorporates the projects impacts to the I-15/East Mission Road ramp intersections. The proposed mitigation shall be changed to indicate that before the final maps approved, the developer will either: 1) pay the additional Transportation Impact Fee (TIF) associated with freeway ramps as adopted by the Board of Supervisors to include improvements to E. Mission Road/I-15 interchange to the satisfaction of the Director of Public Works. (The County's TIF program does not currently include I-15/ East Mission Road Interchange. There is no Guarantee when or if the Board of Supervisors will adopt these ramps into the TIF, so there is no guarantee paying into TIF will be an option for these freeway ramps. Also, if the I-15/East Mission Road improvements currently unknown and (could be very high); or 2) Construct Improvements to East Mission Road/I-15 interchange in proportion to TM 5449 impacts to these facilities to the satisfaction of the Director of Public Works and Caltrans.

Response 1.) The report on pages 32, 33, and 34 have been revised to respond to the comments

TRAFFIC STUDY

FOR

FALLBROOK OAKS

(~~TM 5449~~, GPA 05-008, REZ 05006, R 15-015, STP 07-009, TM
5449)

COUNTY OF SAN DIEGO

Submitted To:

KEYSTONE COMMUNITIES
5333 MISSION CENTER ROAD, SUITE 360
SAN DIEGO, CA 92108-1350

Submitted By:

Darnell & Associates, Inc.
1446 Front Street, Third Floor
San Diego, CA 92101
619-233-9373

December 17~~August 27~~, 2007
050702--Fallbrook Oaks Rpt4-(December~~Rpt3-(August~~ 2007)

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
SECTION I – INTRODUCTION.....	2
PROJECT DESCRIPTION.....	2
CONGESTION MANAGEMENT PROGRAM.....	2
SCENARIOS STUDIED	5
LEVEL OF SERVICE	5
ANALYSIS METHODOLOGY	6
REPORT ORGANIZATION.....	6
SECTION II - EXISTING CONDITIONS	7
EXISTING ROADWAY CHARACTERISTICS	7
KEY INTERSECTIONS.....	9
INTERSECTION TRAFFIC COUNTS.....	9
EXISTING LEVEL OF SERVICE CONDITIONS	9
<i>Roadway Segments</i>	9
<i>Intersections</i>	11
SECTION III - PROJECT RELATED CONDITIONS	12
TRIP GENERATION	12
TRIP DISTRIBUTION/TRIP ASSIGNMENT	13
SECTION IV – IMPACTS.....	16
PUBLIC FACILITIES ELEMENT IN COUNTY	16
LEVELS OF SIGNIFICANCE STANDARDS	16
<i>Roadway Segments</i>	17
<i>Signalized Intersections</i>	17
<i>Unsignalized Intersections</i>	17
EXISTING PLUS PROJECT CONDITIONS.....	18
<i>Roadway Segments</i>	18
<i>Intersections</i>	18
CUMULATIVE IMPACTS.....	23
SECTION V - PROJECT ACCESS, SIGHT DISTANCE, & ON-SITE CIRCULATION	28
PROJECT ACCESS.....	28
SIGHT DISTANCE	28
ON-SITE CIRCULATION.....	30
LEFT TURN LANES AT VALLEY OAKS BOULEVARD WEST/RECHE ROAD.....	30
ROADWAY SEGMENTS.....	32
<i>Direct Impacts</i>	32
<i>Cumulative Impacts</i>	32
INTERSECTIONS.....	33
<i>Direct Impacts</i>	33
<i>Cumulative Impacts</i>	33
PROJECT FRONTAGE IMPROVEMENTS	33
COUNTY OF SAN DIEGO TRAFFIC IMPACT FEE (TIF) PROGRAM.....	33
SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS	35

LIST OF FIGURES

Figure 1 - Vicinity Map	3
Figure 2 - Site Plan	4
Figure 3 - Existing Conditions	8
Figure 4 - Existing Traffic Volumes.....	10
Figure 5 - Trip Distribution	14
Figure 6 - Project Related Traffic Volumes	15
Figure 7 - Existing Plus Project Traffic Volumes	19
Figure 8 - Cumulative Peak Hour Traffic Volumes	20
Figure 9 - Intersection Spacing at Reche / Ranger Road.....	24
Figure 10 - Clear Zone Requirements - Reche Road/ Valley Oaks Blvd. West.....	25
Figure 11 - Clear Zone Requirements - Reche Road/ Ranger Road & Valley Oaks Blvd.	29

LIST OF TABLES

Table 1 - Level of Service Ranges.....	5
Table 2 - Existing Roadway Segment Level of Service Summary	9
Table 3 - Existing Intersection Level of Service Summary.....	11
Table 4 - Trip Generation Summary	12
Table 5 - Measures of Significant Project Impacts.....	16
Table 6 - Existing Plus Project Roadway Segment Level of Service Summary	21
Table 7 - Existing Plus Project Intersection Level of Service Summary	22
Table 8 - Cumulative Intersection Level of Service Summary	27
Table 9 - Project Access Level of Service Summary	28
Table 10 - Transportation Impact Fee Calculation for Fallbrook Oaks.....	34

APPENDICES

APPENDIX A

- 24-Hour Segment Counts
- AM/PM Peak Hour Turn Counts
- (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, SANDAG
 - County of San Diego Level of Service Thresholds
 - Excerpts from the County's Private Road Standards
 - Excerpts from the County's Public Road Standards
 - Excerpts from the *Public Facilities Element*
- Excerpts from the County's *Guidelines for Determining Significance*
- Excerpts from Ordinance No. 9712 (N.S.), Title 7, Division 7 (new), Transportation Impact Fee
 - Excerpts from the Arbor's Traffic Study

APPENDIX B

- Existing Conditions Analysis Synchro Worksheets

APPENDIX C

- Existing + Project Conditions Analysis Synchro Worksheets

APPENDIX D

- Cumulative Conditions Analysis Synchro Worksheets

APPENDIX E

- Cumulative Plus Project Conditions Analysis Synchro Worksheets

APPENDIX F

- Project Access Analysis Synchro Worksheets

APPENDIX G

- Responses to County Comments

EXECUTIVE SUMMARY

The developer proposes to subdivide a 27.2-acre parcel located at the northwest corner of Reche Road and Ranger Road in the Fallbrook Community of the County of San Diego into nineteen (19) lots for single-family residential development. An existing house on lot 19 will remain and eighteen (18) new single-family estate residential homes are proposed to be constructed on the remaining lots. The project consists of a General Plan Amendment (GPA), a Rezone, and a Tentative Map (TM). The GPA proposes to amend the existing land use designations of (6) Residential and (13) General Commercial to (2) Residential throughout the property. The Rezone proposes to remove the C36 (commercial) zoning that currently exists on the property and replace it with A70 (residential) with a minimum lot size of one (1) acre.

As this report will show, based on the existing general plan designation the project site would have a trip generation of 3,360 average daily trips, 164 AM peak hour trips, and 315 PM peak hour trips. Based on the existing zoning for the site, the subject property would have a trip generation of 2,344 average daily trips, 26 AM peak hour trips, and 213 PM peak hour trips. The proposed GPA and rezone would reduce the allowable trip generation on the project site to 324 average daily trips, 26 AM peak hour trips, and 32 PM peak hour trips. This is 3,036 fewer daily trips than what is allowed per the existing general plan designation (i.e. $3,360 - 324 = 3,036$) and 2,020 fewer daily trips than what is allowed per the existing zoning on the site (i.e. $2,344 - 324 = 2,020$).

The project site with the current proposal to develop 18 new estate residential dwelling units and maintain the existing dwelling unit would generate 228 average daily trips, 18 AM peak hour trips and 23 PM peak hour trips. Since the existing dwelling unit on the site is currently vacant, the traffic generated by all 19 dwelling units on the project site was added to existing roadway network.

This report will also show that the proposed project does not have any significant direct roadway or intersection impacts.

The proposed project, will however, be part of significant cumulative impacts to the roadway segments and intersections. The project is part of the cumulative impact on the Interstate 15 Northbound and Southbound Ramps at Mission Road. The Interstate 15 Northbound and Southbound Ramps at Mission Road are not included in the County of San Diego's Transportation Impact Fee (TIF) program, however, the TIF does include improving the segment of Mission Road between Old Highway 395 (west) and the I-15 Southbound Ramps to Prime Arterial standards, improving the segment of Mission Road between the I-15 Southbound Ramps and the I-15 Northbound Ramps to Collector Road standards, and improving the segment of Mission Road between the I-15 Northbound Ramps and Old Highway 395 (east) to Collector Road standards. These improvements included in the TIF program will allow Mission Road at the I-15 Southbound Ramp to be striped to provide one (1) eastbound through lane, one eastbound through-right lane, one westbound left turn lane and one westbound through lane. At the Northbound Ramp, the improvements included in the TIF will allow Mission Road to be striped to provide two (2) eastbound left turn lanes, one (1) eastbound through lane, and one (1) westbound through-right turn lane. Providing two (2) eastbound through lanes from eastbound Mission Road onto northbound I-15 will require the widening of the I-15 northbound on ramp. It should be noted that the County's TIF program does not include the widening of the ramp. To mitigate the project's cumulative impacts, the developer will pay the County of San Diego Traffic Impact Fees as discussed in Section VI and pay its fair share of the widening of the northbound on-ramps to accommodate the two eastbound left-turn lanes on Mission Avenue at the I-15 northbound on-off ramps.

SECTION I – INTRODUCTION

PROJECT DESCRIPTION

The developer proposes to subdivide a 27.2-acre parcel located at the northwest corner of Reche Road and Ranger Road in the Fallbrook Community of the County of San Diego into nineteen (19) lots for single-family residential development. An existing house on lot 19 will remain and eighteen (18) new single-family estate residential homes are proposed to be constructed on the remaining lots. The project consists of a General Plan Amendment (GPA), a Rezone, and a Tentative Map (TM).

Approximately 5.2 acres of the project site has an existing general plan designation of (13) General Commercial. The remaining 22.0 acres of the subject property has a general plan designation of (6) Residential which allows up to 7.3 dwelling units per gross acre. Therefore, with the existing general plan designation the project site could be developed with approximately 160 dwelling units (i.e. 7.3 dwelling units per acre X 22 acres = 16.6 dwelling units) and a 5.2-acre commercial development.

The proposed rezone for the project site will remove the C36 classification thereby having the entire 27.2-acre project site be zoned as A70. The proposed rezone would also limit the development of the subject property to 1 dwelling unit per acre.

With the proposed GPA and rezone, the land use designation for the entire project site will be changed to (2) Residential and the zoning for the entire site will be changed to A70 (i.e. the C36 zoning will be removed) with an allowable density of 1 dwelling unit per acre. This would allow the development of up to 27 dwelling units (i.e. 1 dwelling unit per acre X 27.2 acres = 27.2 dwelling units).

A currently designed, the western section of the project consists of 15 dwelling units with the primary access being provided via one access point along Valley Oaks Boulevard West. The eastern section of the project consists of 3 dwelling units with individual accesses being provided along Ranger Road. The existing home site is located on lot 19 and takes access off Reche Road between Ranger Road and Valley Oaks Boulevard West.

As part of the proposed project, the developer also plans to realign Valley Oaks Boulevard West on the north side of Reche Road to align with Valley Oaks Boulevard West on the south side of Reche Road, thus eliminating the existing intersection offset.

A vicinity map showing the proposed project is provided on Figure 1. The preliminary site plan is illustrated in Figure 2.

CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation, and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. The original CMP for the San Diego region was adopted in 1991 and has been updated periodically as an element of the Regional Transportation Plan (RTP). One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.



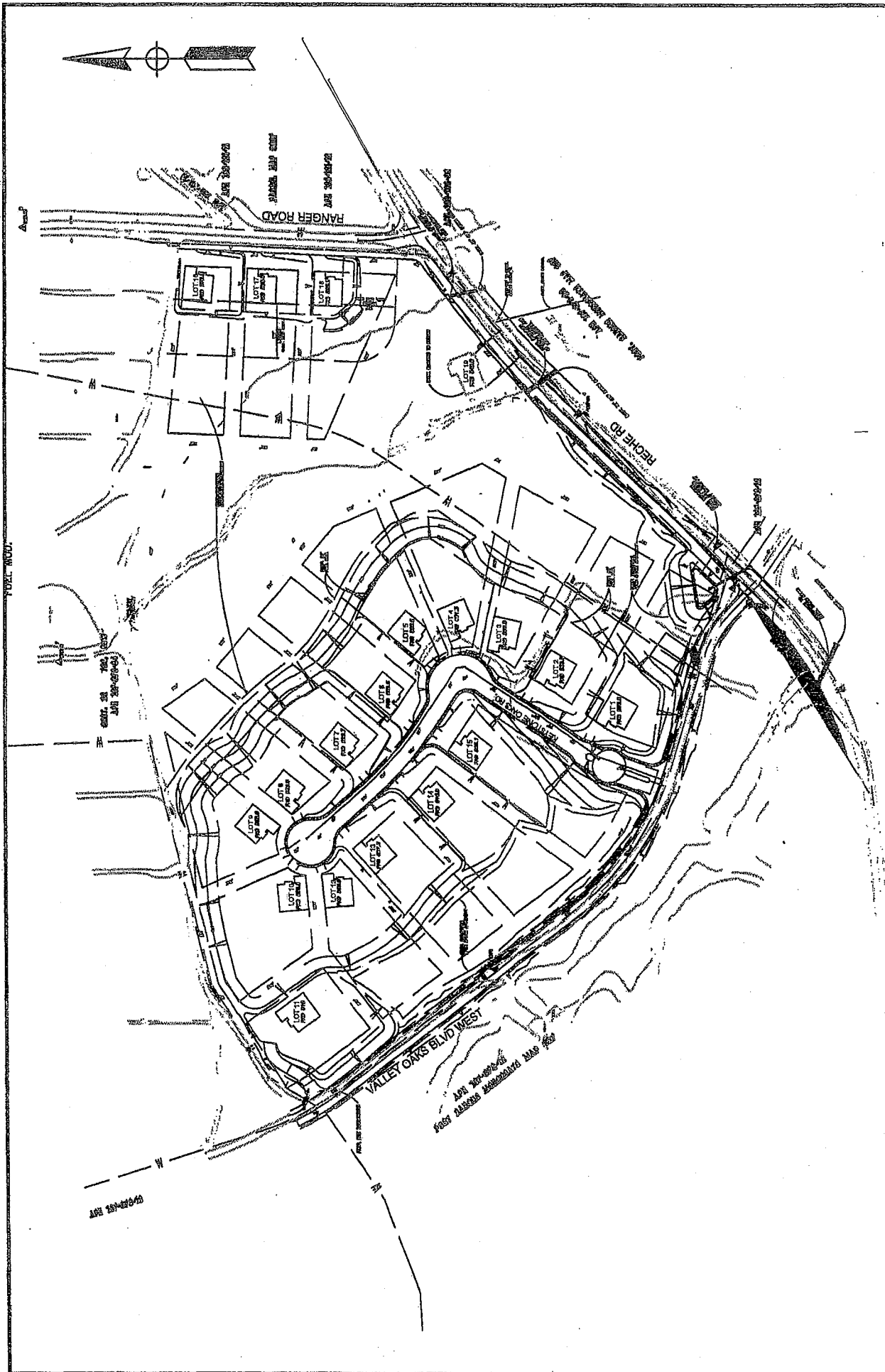


FIGURE 2
SITE PLAN

Darnell & ASSOCIATES, INC.

050702BB.dwg 8-27-07

KRV

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed project will generate 228 average daily trips, 18 AM peak hour trips, and 23 PM peak hour trips (see Section III), and is therefore, not subject to CMP guidelines for traffic impact studies.

SCENARIOS STUDIED

The traffic scenarios analyzed in this report are identified as follows:

Existing Conditions refers to that condition which exists on the ground today (2005), including existing traffic and existing lane configurations at intersections and roadway segments.

Existing Plus Project Conditions refers to that condition which includes the project traffic added onto existing volumes.

Cumulative Without Project Conditions refers to that condition which includes approved/pending project's traffic in the sphere of influence of the project added to the existing traffic volumes. This scenario shows the impact without the project.

Cumulative With Project Conditions refers to that condition which includes approved/pending project's traffic in the sphere of influence of the project and the proposed project's traffic added to the existing traffic volumes. This scenario shows the impact with the project.

LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. Table 1 shows the average daily traffic volumes (ADT) and delay ranges that are equivalent to each level of service.

Table 1 - Level of Service Ranges			
LOS	Intersections		Roadway Segments
	Signalized- Delay (Seconds/Vehicle) ¹	Unsignalized Delay (Seconds/Vehicle) ¹	Average Daily Traffic (ADT) ²
A	Less than or Equal to 10.0	Less than or Equal to 10.0	Less Than 1,900
B	10.1 to 20.0	10.1 to 15.0	1,900 to 4,100
C	20.1 to 35.0	15.1 to 25.0	4,100 to 7,100
D	35.1 to 55.0	25.1 to 35.0	7,100 to 10,900
E	55.1 to 80.0	35.1 to 50.0	10,900 to 16,200
F	Greater Than 80.0	Greater Than 50.1	Greater Than 16,200

¹ The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM)
² The volume ranges are based on the County of San Diego Circulation Element of a Light Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix A.
LOS = Level of Service; mph = miles per hour

According to page XII-4-15 of the San Diego County General Plan *Public Facility Element* "A LOS 'C', which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. ...However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS 'C'. ...In these cases a Level of Service 'D' is acceptable on off-site roadways." A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

ANALYSIS METHODOLOGY

The roadway segment daily LOS was determined by comparing the traffic volumes under each traffic scenario to the capacity of the roadway according to its roadway cross-section and classification. For the purpose of this report, the daily traffic volumes of the roadway segments in the vicinity of the project were compared to the County of San Diego Level of Service classification thresholds. The daily (24 hour) traffic count sheets and a copy of the "Summary of County of San Diego Public Road Standards" are included in Appendix A.

The Synchro Software, version 6.0, was utilized to analyze the morning and afternoon peak hour conditions of the intersections in the project vicinity. It should be noted that Synchro, version 6.0, is based on the methodologies outlined in the 2000 Highway Capacity Manual (HCM). The signalized intersection methodology defines LOS based on delay using variables such as lane configuration, traffic volumes, and signal timings. The unsignalized intersection methodology defines LOS based on the longest delay experienced by any single movement.

REPORT ORGANIZATION

Following this section, Section II evaluates the existing roadway characteristics and traffic conditions surrounding the project area. Section III examines the project trip generation and distribution assumptions. Section IV analyzes the traffic for existing plus project conditions and provides a discussion on the potential cumulative impacts. Section V addresses project access and on-site circulation. Section VI provides recommended mitigation measures and Section VII summarizes the report's findings and conclusions.

SECTION II - EXISTING CONDITIONS

This section of the traffic study is intended to assess the existing conditions of the roadways and intersections within the vicinity of the project to determine travel flow and/or delay difficulties, if any, that exist prior to adding the traffic generated by the proposed project. The existing conditions analysis establishes a base condition which is used to assess the other scenarios discussed in this report.

Darnell & Associates, Inc. (D&A) conducted a field review of the area surrounding the project in July 2005. The existing roadway geometrics are illustrated in Figure 3.

EXISTING ROADWAY CHARACTERISTICS

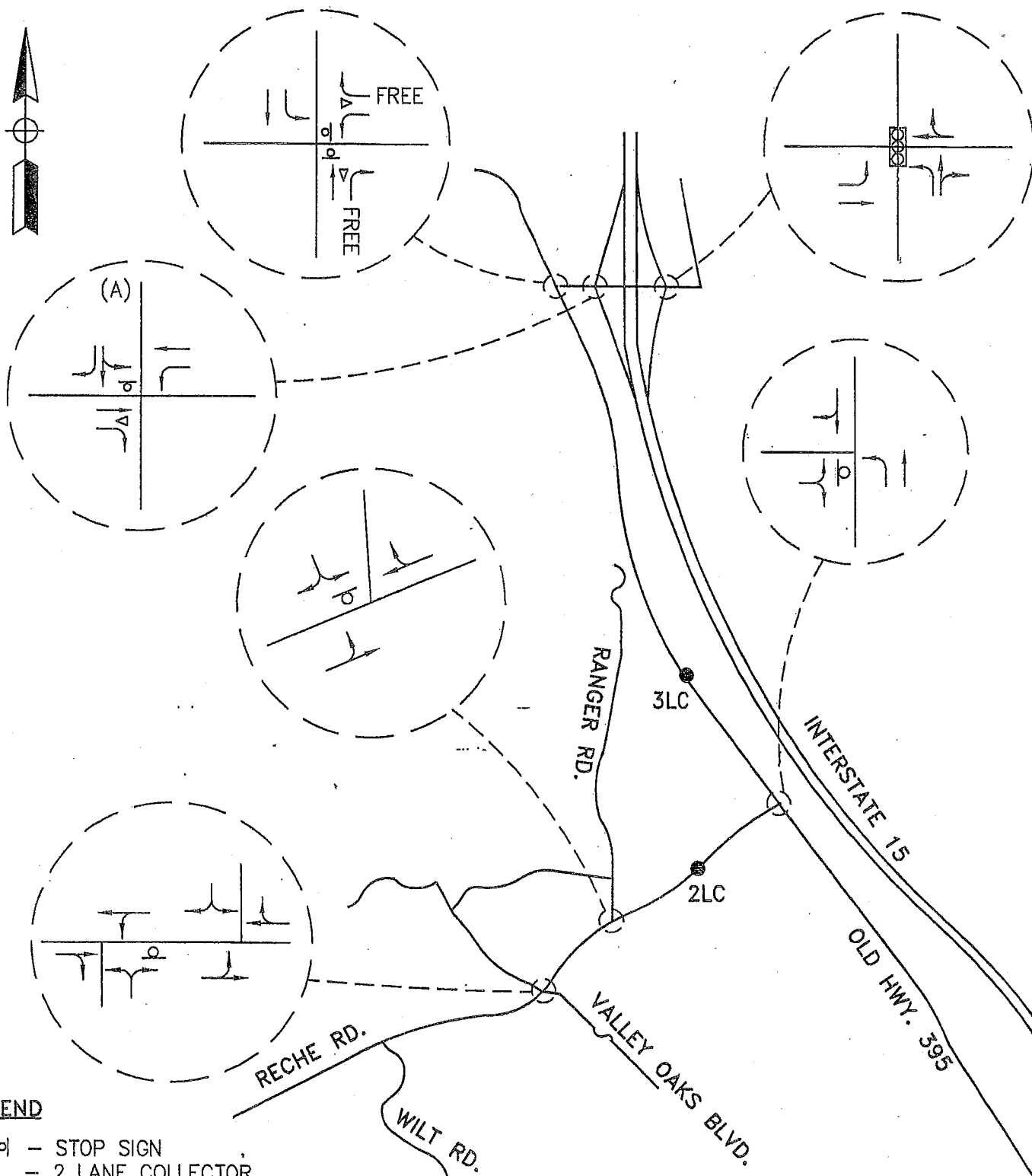
The key segments analyzed in the study area are identified below:

Old Highway 395 is generally constructed as a north-south two-lane undivided circulation element roadway. The roadway segment of Old Highway 395 just north and south of Reche Road has approximately 40 feet of pavement. There is no shoulder along this roadway segment of Old Highway 395 in the vicinity of the Reche Road. The posted speed limit along Old Highway 395 is 55 miles per hour (mph). The existing cross-section of Old Highway 395 is equivalent to that of a Light Collector Road, capacity of 10,900 ADT at LOS D. In the County of San Diego Circulation Element, Old Highway 395 has the ultimate classification of a four (4)-lane Collector Road with bike lanes, capacity of 30,800 ADT at LOS D.


Reche Road (SF 1416) is generally an east/west circulation element roadway with one (1) travel lane in each direction. The roadway segment of Reche Road between Ranger Road and Wilt Road has approximately 30 feet of pavement including a travel way of 25 feet on an average with varying shoulder width. The posted speed limit along Reche Road is 45 mph. It should be noted that Reche Road does not conform to County of San Diego Public Road Standards. For analysis purposes, the capacity of Reche Road was assumed to be equivalent to that of a Rural Collector, capacity of 10,900 ADT at LOS D. In the County of San Diego Circulation Element, Reche Road has the ultimate classification of a two (2)-lane Rural Collector Road with bike lanes, capacity of 10,900 ADT at LOS D.

Valley Oaks Boulevard West is a north-south two-lane undivided, non-circulation element roadway with no center line stripe. The roadway segment of Valley Oaks Boulevard West just north of Reche Road has a pavement width of approximately 15 feet and does not have a posted speed limit. The capacity of Valley Oaks Boulevard West has been assumed to be equivalent to that of a residential street (1500 ADT at LOS C) with design speed of 25 mph. However, level of service is not typically applied to non-circulation element roadways since their primary purpose is to serve abutting lots, not carry through traffic.

Ranger Road is a north-south two-lane undivided, non-circulation element roadway with no center line stripe. The roadway segment of Ranger Road just north of Reche Road has a pavement width of approximately 30 feet and does not have a posted speed limit. The capacity of Ranger Road has been assumed to be equivalent to that of a residential collector (4500 ADT at LOS C) with design speed of 25 mph. However, level of service is not typically applied to non-circulation element roadways since their primary purpose is to serve abutting lots, not carry through traffic.



LEGEND

- o - STOP SIGN
- 2LC - 2 LANE COLLECTOR
- 3LC - 3 LANE COLLECTOR
- - DIRECTION OF TRAVEL
-  - TRAFFIC SIGNAL

(A) - SIGNAL IS INSTALLED BUT NOT TURNED ON.

Darnell & ASSOCIATES, INC.

050702BB.dwg 8-27-07

JLB

FIGURE 3
EXISTING CONDITIONS

ROADWAY SEGMENT DAILY TRAFFIC

Twenty-four (24) hour traffic counts were collected on Reche Road, Valley Oaks Boulevard West, and Ranger Road on Tuesday, July 26, 2005. Figure 4 presents the existing conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.

KEY INTERSECTIONS

Figure 3 provides intersection configurations and traffic control for the key intersections. The key intersections analyzed in the study area are identified below:

- Old Highway 395/Reche Road (one-way stop-controlled);
- Reche Road/Ranger Road (one-way stop-controlled);
- Valley Oaks Boulevard West (North of Reche Rd)/Reche Road (uncontrolled);
- Valley Oaks Boulevard West (South of Reche Rd)/Reche Road (one-way stop-controlled);
- East Mission Road/Old Highway 395 (two-way stop controlled westbound/northbound)
- East Mission Road/Interstate 15 Southbound Ramps (Signal Controlled but not turned on, meanwhile, one way top control, southbound);
- East Mission Road/Interstate 15 northbound Ramps (Signal Controlled).

It should be noted that Valley Oaks Boulevard West forms two intersections with Reche Road offset by approximately 40 feet. The AM/PM peak hour traffic count for the Valley Oaks Boulevard West/Reche Road intersection has been provided in one count summary (see Appendix A).

INTERSECTION TRAFFIC COUNTS

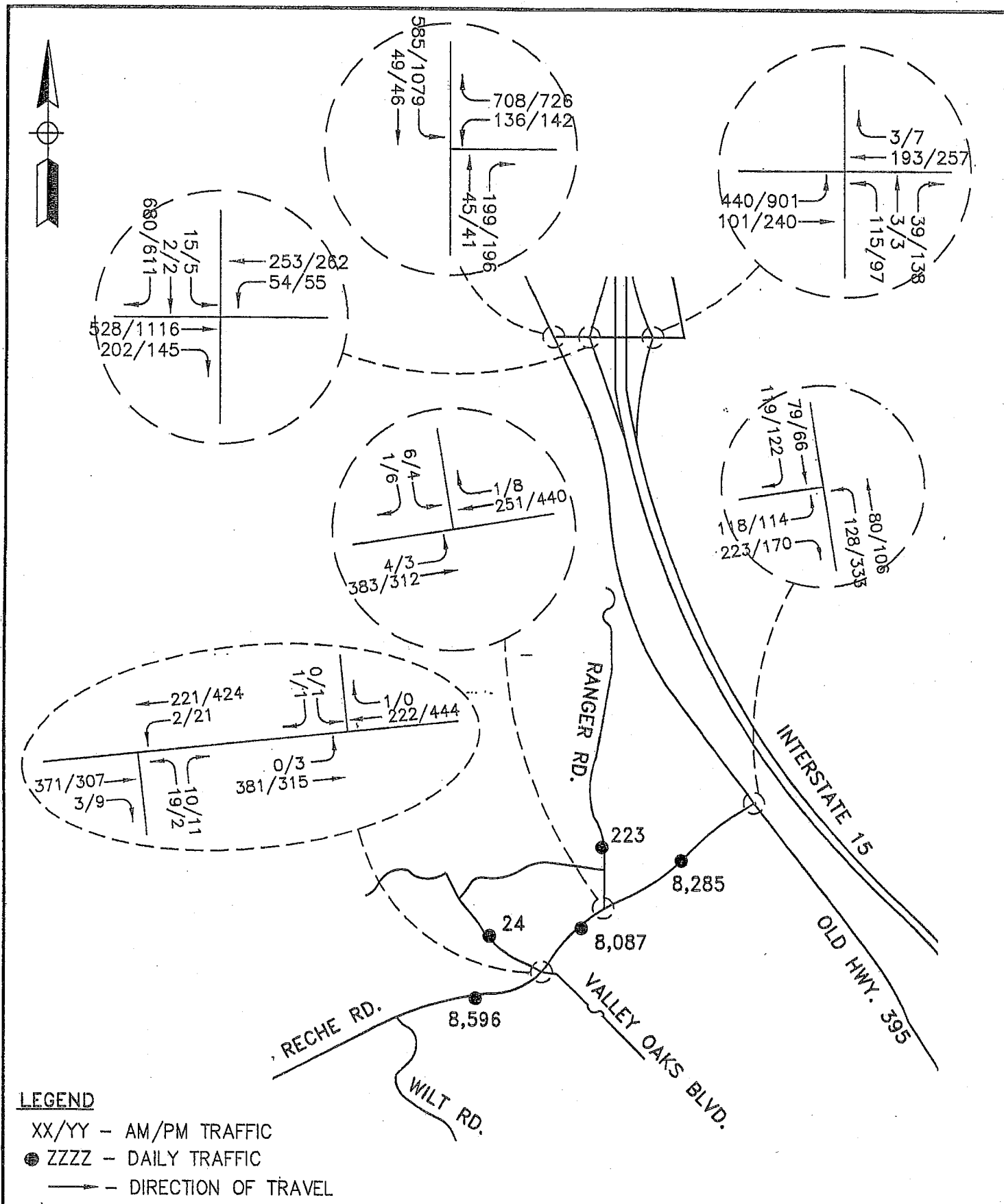
Morning and afternoon peak hour turn counts for the intersections were collected on Tuesday, July 26, 2005. Mission Road/I-15 counts were collected in October 2004. Figure 4 presents the existing conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.

EXISTING LEVEL OF SERVICE CONDITIONS

Roadway Segments

The existing daily roadway segment levels of service are summarized in Table 2. As can be seen in Table 2, all roadway segments analyzed currently operate at LOS D or better.

Table 2 - Existing Roadway Segment Level of Service Summary				
Roadway Segment	Classification	Capacity @ LOS D	ADT	LOS
Reche Road				
-Wilt Rd to Valley Oaks Blvd. West	Rural Collector	10,900	8,596	D
- Valley Oaks Blvd. West To Ranger Rd.	Rural Collector	10,900	8,087	D
- Ranger Rd. to Old Highway 395	Rural Collector	10,900	8,285	D
Valley Oaks Boulevard West^(a)				
-Yucca Rd. to Reche Rd.	Residential Street	1,500	24	< C
Ranger Road ^(a)				
-Ashley Dr. to Reche Rd.	Residential Collector	4,500	223	< C
(a) Levels of Service are not typically applied to non-circulation element roadways. The capacity shown here is the recommended capacity for LOS C. < C = Operates at better than LOS C. Capacity is based on upper limit of LOS D per the County of San Diego Level of Service Thresholds ADT = Average Daily Traffic; LOS = Level of Service				



Darnell & ASSOCIATES, INC.

050702BB.dwg 8-27-07

JLB

FIGURE 4
EXISTING TRAFFIC VOLUMES

Intersections

The existing conditions Levels of Service for the key intersections were calculated utilizing the lane geometrics shown in Figure 3. The results of the Synchro analysis are summarized in Table 3. A copy of the Synchro worksheets for existing conditions can be found in Appendix B.

In Table 3, with the exception of the Old Highway 395/Reche Road intersection, East Mission/Old Highway 395, and the East Mission/I-15 southbound and northbound ramps all intersections analyzed currently operate at LOS C or better during both AM and PM peak hours. The eastbound approach at the Old Highway 395/Reche Road intersection currently operates at LOS E during the PM peak hour. The westbound approach on East Mission/Old Highway 395 intersection currently operates at LOS F during both AM and PM peak hour. The westbound left approach at East Mission/I-15 southbound intersection currently operates at LOS F during the PM peak hour and westbound right approach operates at LOS E during the AM peak hour. The East Mission/I-15 northbound intersection currently operates at LOS E during PM peak hour.

Table 3 - Existing Intersection Level of Service Summary						
Intersection	Traffic Control	Critical Movement	AM Peak Hour		PM Peak Hour	
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Old Highway 395(N-S) @ Reche Road (E-W)	OWSC	EB	17.4	C	41.3	E
		NBL	8.0	A	8.6	A
Reche Road (E-W) @ Ranger Road (N-S)	OWSC	SB	13.4	B	13.1	B
		EB	0.1	A	0.1	A
N. Valley Oaks Boulevard West (N-S) @ Reche Road (E-W)	OWSC	SB	9.6	A	13.8	B
		EB	0.0	A	0.1	A
S. Valley Oaks Boulevard West (N-S) @ Reche Road (E-W)	Uncontrolled	NB	13.0	B	11.2	B
		WB	0.1	A	0.6	A
E Mission (E-W) @ Hwy 395 (N-S)	TWSC	WBL	672.4	F	ERR.	F
		WBR	23.2	C	19.6	C
		SBL	9.2	A	14.1	B
E Mission (E-W) @ I-15 SB Ramps (N-S)	OWSC	WBT	22.3	C	51.9	F
		WBR	36.0	E	28.3	D
		EBR	9.6	A	12.7	B
E Mission (E-W) @ I-15 NB Ramps (N-S)	SIG.	EB	13.6	B	58.6	E
sec/veh = seconds of delay per vehicle; LOS = Level of Service; N-S=north-south roadway; E-W=east-west roadway OWSC = One-Way Stop-Controlled; TWSC=two-way stop controlled; SIG = signalized; ERR= Delay is higher then Synchro software can estimate. EB = Eastbound Approach; WB = Westbound Approach; NB Approach; NBL = Northbound Left; SB = Southbound Approach; EBR=Eastbound Right; EBT=Eastbound Through; EBL=Eastbound Left; WBT=Westbound Through; WBL=Westbound Left; WBR=Westbound Right; SBL=Southbound Left						

SECTION III - PROJECT RELATED CONDITIONS

TRIP GENERATION

Trip generation to/from the proposed development was calculated based on the trip generation rates published by the San Diego Association of Governments' (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. As discussed in Section I, since the proposed project requires a General Plan Amendment (GPA) and a Rezone; the trip generation was calculated for the existing general plan designation, the existing zoning, the proposed general plan designation and zoning, and the proposed project. Table 4 summarizes the trip generation rates and calculations for each of these conditions.

Table 4 - Trip Generation Summary								
Development Allowed								
Land Use Designation	Size	Density Allowed	# Units Allowed					
Existing General Plan Designation								
(13) General Commercial	5.2 Acres		5.2 Acres					
(6) Residential	22 Acres	7.3 DU/Acre	160 DU					
Existing Zoning								
C-36 (General Commercial)	5.2 Acres		5.2 Acres					
A-70 (Residential)	22 Acres	1.0 DU/Acre	22 DU					
Proposed General Plan & Zoning Designation								
(2) Residential, A-70 (Residential)	27.2 Acres	1.0 DU/Acre	27 DU					
Trip Generation Rates								
Land Use	Daily	AM Peak Hour			PM Peak Hour			
		Total - % of Daily	% In	% Out	Total - % of Daily	% In	% Out	
General Commercial	400 Trips/Acre	3%	60%	40%	9%	50%	50%	
Condominiums	8 Trips/DU	8%	20%	80%	10%	30%	30%	
Estate Residential	12 Trips/DU	8%	30%	70%	10%	70%	30%	
Trip Generation								
Land Use	# Units	Daily Traffic	AM Peak Hour Traffic			PM Peak Hour Traffic		
			Daily	In	Out	Daily	In	Out
Existing General Plan Designation								
General Commercial	5.2 Acres	2,080	62	37	25	187	94	93
Condominiums	160 DU	1,280	102	20	82	128	38	90
Total		3,360	164	57	107	315	132	183
Existing Zoning Designation								
General Commercial	5.2 Acres	2,080	62	37	25	187	94	93
Estate Residential	22 DU	264	21	6	15	26	18	8
Total		2,344	83	43	40	213	112	101
Proposed General Plan & Zoning Designation								
Estate Residential	27 DU	324	26	8	18	32	22	10
Total		324	26	8	18	32	22	10
Proposed Project								
Existing - Estate Residential	1 DU	12	1	0	1	1	1	0
Proposed - Estate Residential	18 DU	216	17	5	12	22	15	7
Total	19 DU	228	18	5	13	23	16	7
Trip Rates are based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002								
DU = Dwelling Units								

As shown in Table 4, based on the existing general plan designation the project site would have a trip generation of 3,360 average daily trips, 164 AM peak hour trips, and 315 PM peak hour trips. Based on the existing zoning for the site, the subject property would have a trip generation of 2,344 average daily trips, 26 AM peak hour trips, and 213 PM peak hour trips. The proposed GPA and rezone would reduce the allowable trip generation on the project site to 324 average daily trips, 26 AM peak hour trips, and 32 PM peak hour trips. This is 3,036 fewer daily trips than what is allowed per the existing general plan designation (i.e. $3,360 - 324 = 3,036$) and 2,020 fewer daily trips than what is allowed per the existing zoning on the site (i.e. $2,344 - 324 = 2,020$).

Table 4 also shows that the project site with the current proposal to develop 18 new estate residential dwelling units and maintain the existing dwelling unit would generate 228 average daily trips, 18 AM peak hour trips and 13 PM peak hour trips. Since the existing dwelling unit on the site is currently vacant, the traffic generated by all 19 dwelling units on the project site was added to existing roadway network.

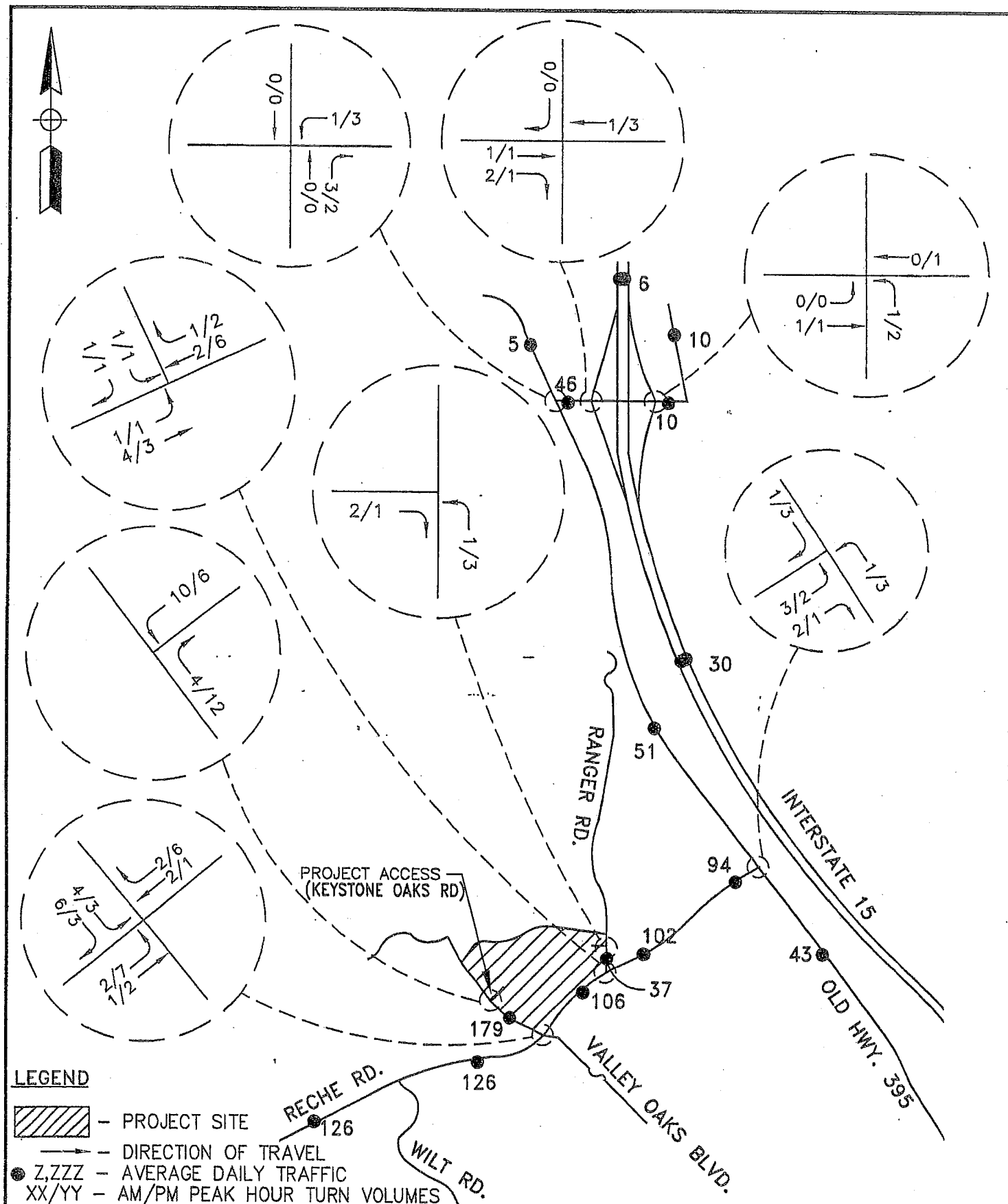
TRIP DISTRIBUTION/TRIP ASSIGNMENT

The general trip distribution to/from the project site was based on the SANDAG 2005 Select Zone forecast.

Figure 5 illustrates the trip distribution percentages on the existing roadway network and Figure 6 illustrates the project related traffic volumes. It should be noted that since the existing dwelling unit on the project site is currently vacant, the traffic volumes shown in Figure 6 are representative of the traffic generated by the development of all 19 single-family estate residential dwelling units proposed to be constructed/left on the project site (i.e. 228 average daily trips, 18 AM peak hour trips, and 23 PM peak hour trips).

As part of the proposed project, the developer will realign the segment of Valley Oaks Boulevard West on the north side of Reche Road to align with Valley Oaks Boulevard West on the south side of Reche Road, thus eliminating the intersection offset. The project distribution and project related traffic shown in Figures 5 and 6 reflect the proposed realignment of Valley Oaks Boulevard West.

The impacts associated with the addition of project traffic are discussed in the following section, Section IV.



Darnell & ASSOCIATES, INC.

050702BB.dwg 8-27-07

JLB

FIGURE 6

PROJECT RELATED TRAFFIC VOLUMES

SECTION IV – IMPACTS

PUBLIC FACILITIES ELEMENT IN COUNTY

According to page XII-4-18 of the *Public Facility Element* for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make “improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below ‘D’ on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS ‘E’ or ‘F’, either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to ‘D’ or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines.”

The *Public Facility Element* for the County of San Diego also requires that all on-site Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures. A copy of excerpts from the County’s *Public Facility Element* can be found in Appendix A.

LEVELS OF SIGNIFICANCE STANDARDS

Although the *Public Facility Element* (PFE) sets standards as to which level of service roadways and intersections must operate within the County (i.e. requires operation of LOS D or better), it does not establish a threshold to evaluate whether a project is significant if it adds traffic to a roadway facility that is currently operating at an unacceptable LOS E or F. Thus, the County of San Diego’s *Guideline for Determining Significance* adopted September 26, 2006 were developed to evaluate the significance of traffic impacts on roadways and intersections, which are currently operating at LOS E or F. A summary of the County’s *Guidelines for Determining Significance* is provided in Table 5. Excerpts from the County’s guidelines are provided in Appendix A.

Table 5 - Measures of Significant Project Impacts					
LOS	Allowable Increase on Congested Roads and Intersections				
	Intersections		Road Segments		
	Signalized	Unsignalized	2-Lane Road	4-Lane Road	6-Lane Road
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement	200 ADT	400 ADT	600 ADT
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement	100 ADT	200 ADT	300 ADT
Notes: – A critical movement is one that is experiencing excessive queues. – By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts. – The County may also determine impacts have occurred on roads even when a project’s traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.					
ADT = Average Daily Traffic; LOS = Level of Service, sec = Seconds of Delay per Vehicle					

Roadway Segments

As shown in Table 5, per the *County's Guidelines for Determining Significance*, a project would be considered to have a significant direct traffic volume and/or level of service traffic impact on a road segment if:

- "The additional or redistributed ADT generated by the proposed project will cause an adjacent or nearby County Circulation Element Road to operate below LOS D and will significantly increase congestion as identified in Table [5], and/or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity, and/or
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road, State Highway, or intersection currently operating at LOS E or LOS F as identified in Table [5]."

Signalized Intersections

At signalized intersections, the project would be considered to have a significant direct volume and/or level of service traffic impact if:

- "The additional or redistributed ADT generated by the proposed project will cause a signalized intersection to operate below LOS D and will significantly increase congestion as identified in Table [5], and/or
- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F as identified in Table [5]."

Unsignalized Intersections

At unsignalized intersections, the project would be considered to have a significant direct volume and/or level of service traffic impact if:

- "The proposed project will generate 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D, or
- The proposed project will generate 20 or more peak hour trips to a critical movement of an unsignalized intersection and the unsignalized intersection currently operates at LOS E, or
- The proposed project will generate 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS E, or
- The proposed project will generate 5 or more peak hour trips to a critical movement of an unsignalized intersection and the unsignalized intersection currently operates at LOS F, or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance and/or other factors, it is found that the generation rate less than those specified above would significantly impact the operations of the intersection."

It should be noted that the significance thresholds summarized in Table 5 are currently only utilized by the County of San Diego to determine if a project has a significant direct and/or future impact. A project is considered to have a significant cumulative impact if it adds any traffic to a roadway segment and/or intersection that operates at LOS E or F under cumulative conditions.

Consistent with the *PFE* the criteria described above was only applied to segments and intersections that operate at LOS E or LOS F. As outlined in the *PFE*, if the addition of the project reduces an acceptable

level of service (LOS D or better) to and unacceptable level (LOS E or F), it is considered to be significant regardless of the volume of traffic it adds to the segment or intersection.

EXISTING PLUS PROJECT CONDITIONS

The daily and peak hour turn volumes for existing plus project conditions are illustrated in Figure 7.

Roadway Segments

The roadway segments were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The roadway segments daily levels of service are summarized in Table 6.

As shown in Table 6, all key roadway segments analyzed continue to operate at an acceptable LOS D or better with the addition of the proposed project and therefore the proposed project is not considered to have a direct impact.

In addition the proposed project will add less than 100 ADT to all other roadway segments to the east of the project site that were not analyzed in Table 6. Since this is less than the County's threshold identified in Table 5, the proposed project will not have any significant direct roadway segment impacts.

Intersections

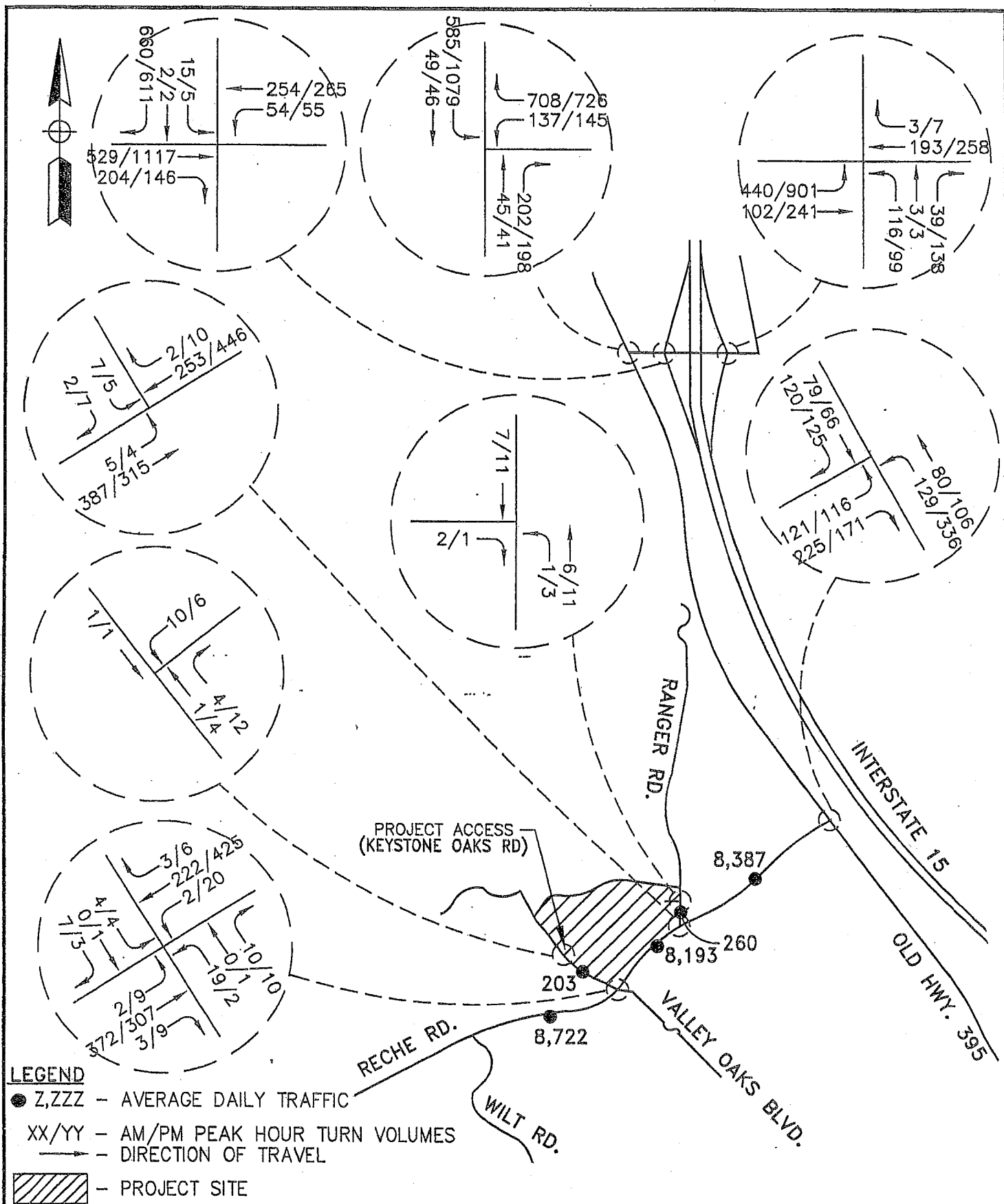
The intersections were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The intersections' levels of service for existing plus project conditions are summarized in Table 7. A copy of the Synchro worksheets for existing plus project conditions can be found in Appendix C.

As previously discussed, with construction of the project the developer plans to realign the segment of Valley Oaks Boulevard West on the north side of Reche Road to align with Valley Oaks Boulevard West on the south side of Reche Road, thus eliminating the intersection offset. The analysis for both the existing and existing plus project conditions summarized in Table 7 assume the offset at the Valley Oaks Boulevard West/Reche Road intersection has been eliminated.

As Shown in Table 7, at the Old Highway 395/Reche Road intersection, the eastbound approach continues to operate at LOS E during the PM peak hour with the addition of the proposed project. The westbound left approach at the E. Mission/Old Highway 395 intersection currently operates at LOS F during both AM and PM peak hour. The westbound through approach at East Mission/I-15 southbound intersection currently operates at LOS F during both the PM peak hour and westbound right approach operates at LOS E during the AM peak hour under both Existing and existing plus project conditions. The E. Mission/I-15 northbound ramp intersection operates at a LOS E during the PM peak hour.

The proposed project will add five (5) and three (3) trips to eastbound approach at the Old Highway 395/Reche Road intersection the during AM and PM peak hours, respectively. Under the PFE criteria, a significant impact would result if the project would "significantly impact congestion" on this intersection, which currently operates at LOS E. Since the project traffic added to this intersection is less than the 20 peak hour trips allowed to be added to a critical movement at an unsignalized intersection which is currently operating at LOS E, per the County of San Diego's *Guidelines for Determining Significance*, it is concluded that the proposed project will not significantly impact congestion at this intersection. Thus, the proposed project is considered to not have a significant direct impact at the Old Highway 395/Reche Road intersection.

In addition, the proposed project will not add more than 5 peak hour trips to any critical movements at the E. Mission/I-15 northbound ramp, E. Mission/I-15 southbound ramp, and E. Mission/Old Highway 395 intersections. Since this is less than the County's threshold identified in Table 5, the proposed project will not have any significant direct impacts at the intersections.



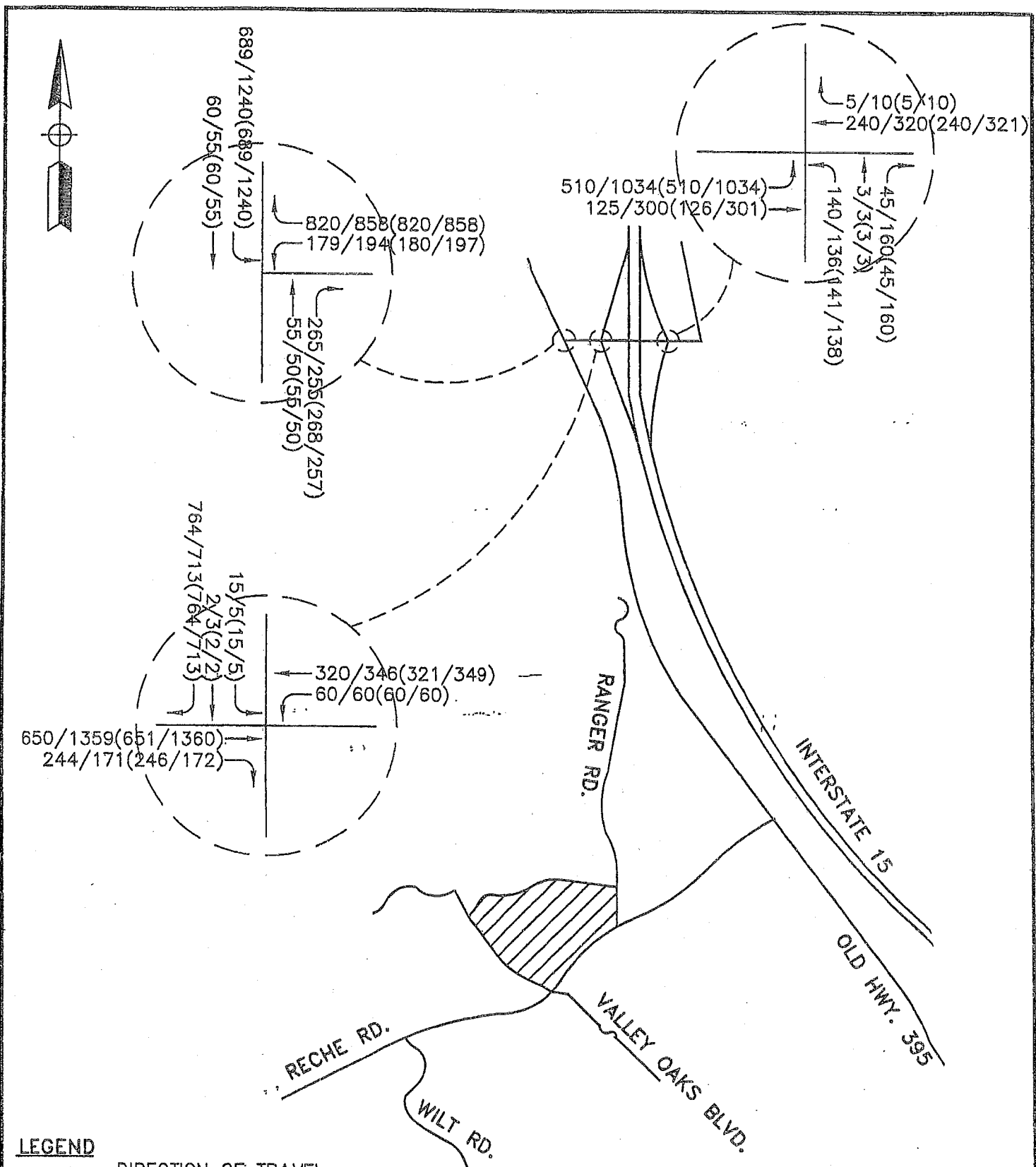
Darnell & ASSOCIATES, INC.

050702BB.dwg B-27-07

JLB

FIGURE 7

EXISTING PLUS PROJECT TRAFFIC VOLUMES



Darnell & ASSOCIATES, INC.

050702BB.dwg 8-28-07

JLB

FIGURE 8

CUMULATIVE PEAK HOUR TRAFFIC VOLUMES

Table 6 - Existing Plus Project Roadway Segment Level of Service Summary

Roadway Segment	Classification	Capacity @ LOS D	Existing		Two-Way Project Traffic	Existing + Project			
			A.D.T.	LOS		A.D.T.	LOS	Significant	Impact
Reche Road									
-Wilt Rd to Valley Oaks Blvd.	Rural Collector	10,900	8,596	D	126	8,722	D	N/A	None
- Valley Oaks Blvd. To Ranger Rd.	Rural Collector	10,900	8,087	D	106	8,193	D	N/A	None
- Ranger Rd. to Old Highway 395	Rural Collector	10,900	8,285	D	102	8,387	D	N/A	None
Valley Oaks Boulevard West ^(a)									
-Yucca Rd. to Reche Rd.	Residential Street	1,500	24	< C	179	203	< C	N/A	None
Ranger Road ^(a)									
-Ashley Dr. to Reche Rd.	Residential Collector	4,500	223	< C	37	260	< C	N/A	None

(a) Levels of Service are not typically applied to non-circulation element roadways. The capacity shown here is the recommended capacity for LOS C

Capacity is based on the upper limit of LOS D per the County of San Diego Level of Service Thresholds

Significance is based on the County of San Diego's *Guidelines for Determining Significance*

< C = Operates at better than LOS C; N/A = Not Applicable because segment operates at LOS D or better

Table 7 - Existing Plus Project Intersection Level of Service Summary

Intersection	Traffic Control	Critical Move	Existing				Existing + Project											
			AM Peak		PM Peak		AM Peak					PM Peak						
			Delay	LOS	Delay	LOS	Delay	LOS	Δ Delay	Proj. Trips	Sig.?	Impact	Delay	LOS	Δ Delay	Proj. Trips	Sig.?	Impact
Old Highway 395(N-S) @ Reche Road (E-W)	OWSC	EB	17.4	C	41.3	E	17.8	C	0.4	5	N/A	None	44.3	E	3.0	3	No	None
		NBL	8.0	A	8.6	A	8.0	A	0.0	1			8.6	A	0.0	3		
Reche Road (E-W) @ Ranger Road (N-S)	OWSC	SB	13.4	B	13.1	B	13.4	B	0.0	2	N/A	None	13.4	B	0.3	2	N/A	None
		EB	0.1	A	0.1	A	0.1	A	0.0	5			0.1	A	0.0	4		
S. Valley Oaks Boulevard West (N-S) @ Reche Road (E-W)	TWSC ^(a)	EB	0.0	A	0.1	A	0.1	A	0.1	3			0.3	A	0.2	9		
		WB	0.1	A	0.6	A	0.1	A	0.0	4			0.5	A	0.1	7		
		NB	13.8	B	12.1	B	14.1	B	0.3	0	N/A	None	12.3	B	0.2	0	N/A	None
		SB	9.5	A	15.8	C	11.7	B	2.2	10			16.3	C	0.5	6		
		WBL	672.4	F	ERR.	F	679.3	F	13.5	0			ERR.	F	-	0		
		WBR	23.2	C	19.6	C	23.2	C	0.0	0	No	None	19.6	C	0.0	0	No	None
E Mission (E-W) @ Hwy 395 (N-S)	OWSC	SBL	9.2	A	14.1	B	9.2	B	0.0	3			14.1	D	0.0	2		
		WBT	22.3	C	51.9	F	22.4	C	0.1	1			52.2	F	0.3	3		
		WBR	36.0	E	28.3	D	36.2	E	0.2	0	No	None	28.7	D	0.4	0	No	None
		EBR	9.6	A	12.7	B	9.6	A	0.0	2			12.7	B	0.0	1		
E Mission (E-W) @ I-15 SB Ramps (N-S)	OWSC	INT.	13.6	B	58.6	E	13.6	B	0.0	1	No	None	59.2	E	0.6	2	No	None
E Mission (E-W) @ I-15 NB Ramps (N-S)	SIG.																	

(a) Analysis assumes that Valley Oaks Boulevard West has been realigned to eliminate the intersection offset

Delay = seconds of delay per vehicle; LOS = Level of Service; Δ Delay = Increase (Decrease) in delay measured in seconds/vehicle; N-S=North-South Roadway; E-W=East-West Roadway

Sig.? = County of San Diego's *Guidelines for Determining Significance*; N/A = Not Applicable because intersection operates at LOS D or better;

OWSC = One-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; SIG=Signalized; ERR= Delay is higher than Synchro software can estimate; INT=Intersection

EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; NB = Northbound Approach; SB = Southbound Approach;

EBR=Eastbound Right; EBT=Eastbound Through; EBL=Eastbound Left; WBT=Westbound Through; WBL=Westbound Left; WBR=Westbound Right; NBT=Northbound Through; SBL=Southbound Left;

Troj. Trips = See Figure 6 For Project Related Peak Hour Trips on Each Critical Movement

(a) Analysis assumes that Valley Oaks Boulevard West has been realigned to eliminate the intersection offset

Delay = seconds of delay per vehicle; LOS = Level of Service; Δ Delay = Increase (Decrease) in delay measured in seconds/vehicle; N-S=North-South Roadway, E-W=East-West Roadway
Sig. ? = County of San Diego's Guidelines for Determining Significance; N/A = Not Applicable because intersection operates at LOS D or better;

OWSC = One-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; SIG=Signalized; ERR= Delay is higher than Synchro software can estimate; INT=Intersection

EB = Eastbound Approach; WB = Westbound Approach; NBL = Northbound Left; NB = Northbound Approach; SB = Southbound Approach;

EBR=Eastbound Right; EBT=Eastbound Through; EBL=Eastbound Left; WBT=Westbound Through; WBL=Westbound Left; WBR=Westbound Right; NBT=Northbound Through; SBL=Southbound Left;

Proj. Trips = See Figure 6 For Project Related Peak Hour Trips on Each Critical Movement.

CUMULATIVE IMPACTS

County of San Diego Facilities

The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants. Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNet, state and federal funding to improve freeways to projected level of service objectives in the RTP.

The proposed project generates 228 average daily trips. These trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. Although the project is processing a General Plan Amendment and a Rezone, the proposed changes to the existing general plan and zoning designations will actually result in a reduction in the allowable traffic generation to/from the site. Thus, the potential growth represented by the proposed project was included in the growth projections upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above, will mitigate potential cumulative traffic impacts to less than significant.

See Section VI for the calculation of the Traffic Impact Fees the proposed development will be required to pay to mitigate its potential cumulative impacts.

Caltrans' Facilities

It should be noted that the TIF program does not provide mitigation for state-maintained facilities, including the Interstate 15 northbound and southbound ramps at East Mission Road. Therefore, to assess the project's potential cumulative impacts and required mitigation/if any that would be needed a detailed cumulative analysis based on the list of approved/pending projects methodology was completed. The cumulative analysis was focused on only those facilities not covered by the County's TIF program (East Mission Road/I-15 northbound and southbound ramps). Due to the close intersection spacing, the operation of the East Mission Road/Old Highway 395 intersection will impact the operation of the East Mission Road/I-15 northbound ramps. Therefore, the cumulative analysis also assessed the operation of the East Mission Road/Old Highway 395 intersection.

The cumulative without project traffic volumes for the East Mission Road/Old Highway 395, East Mission Road/I-15 northbound ramp, and East Mission Road/I-15 southbound ramp were obtained from Darnell & Associates', Inc. (D&A's) April 11, 2007 *Traffic Study for The Arbors (TM 5268DL, Log # 01-02-049)*. (Copies of excerpts from The Arbors traffic study is provided in Appendix A). The Arbors traffic study did not include the proposed Fallbrook Oaks project, therefore, to obtain the cumulative with project traffic volumes the project traffic was added to the cumulative volumes obtained from the Arbors traffic study. The cumulative without and with project traffic volumes are illustrated in Figure 8.

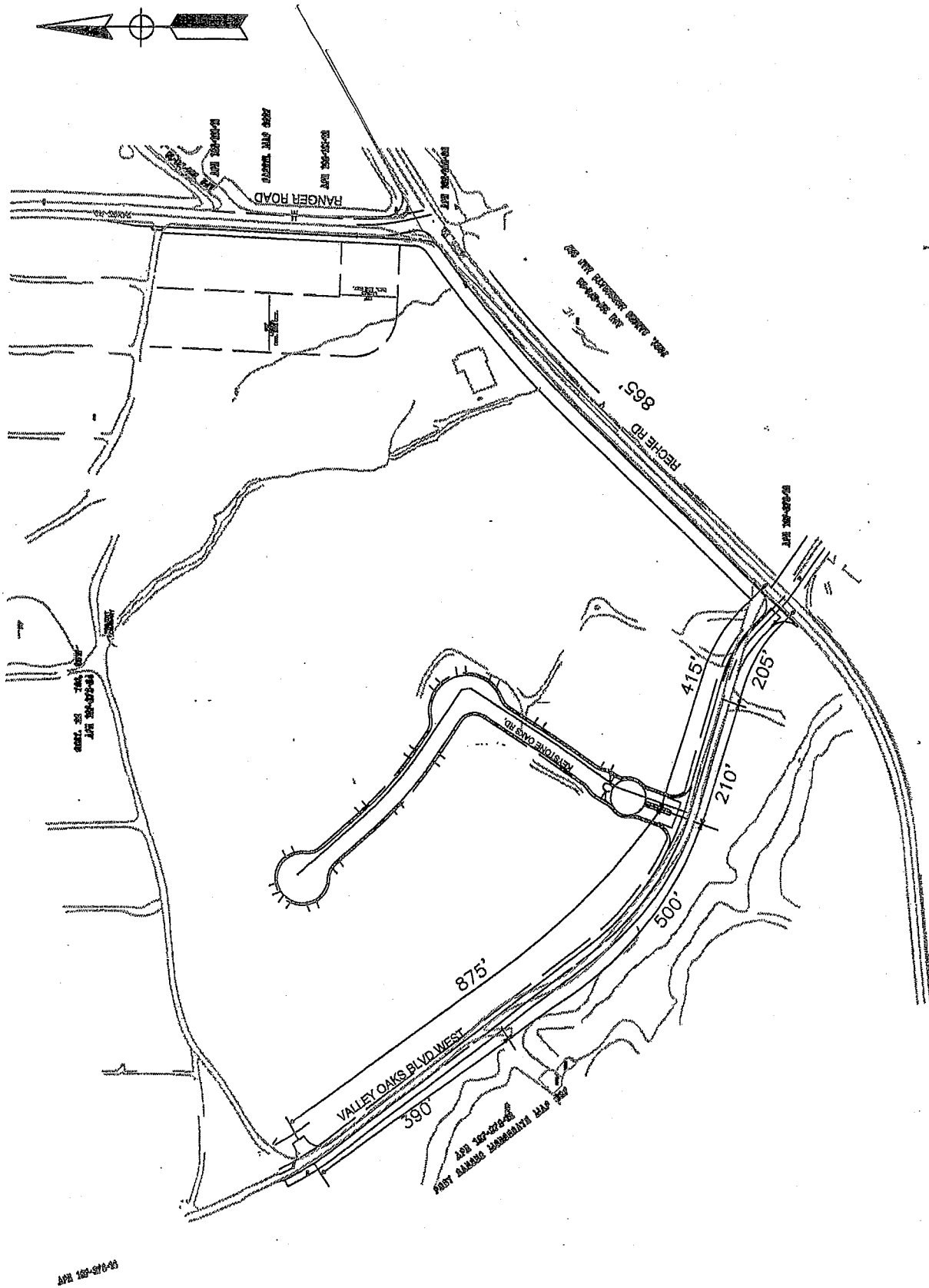


FIGURE 9
INTERSECTION SPACING ALONG RECHE RD & RANGER RD

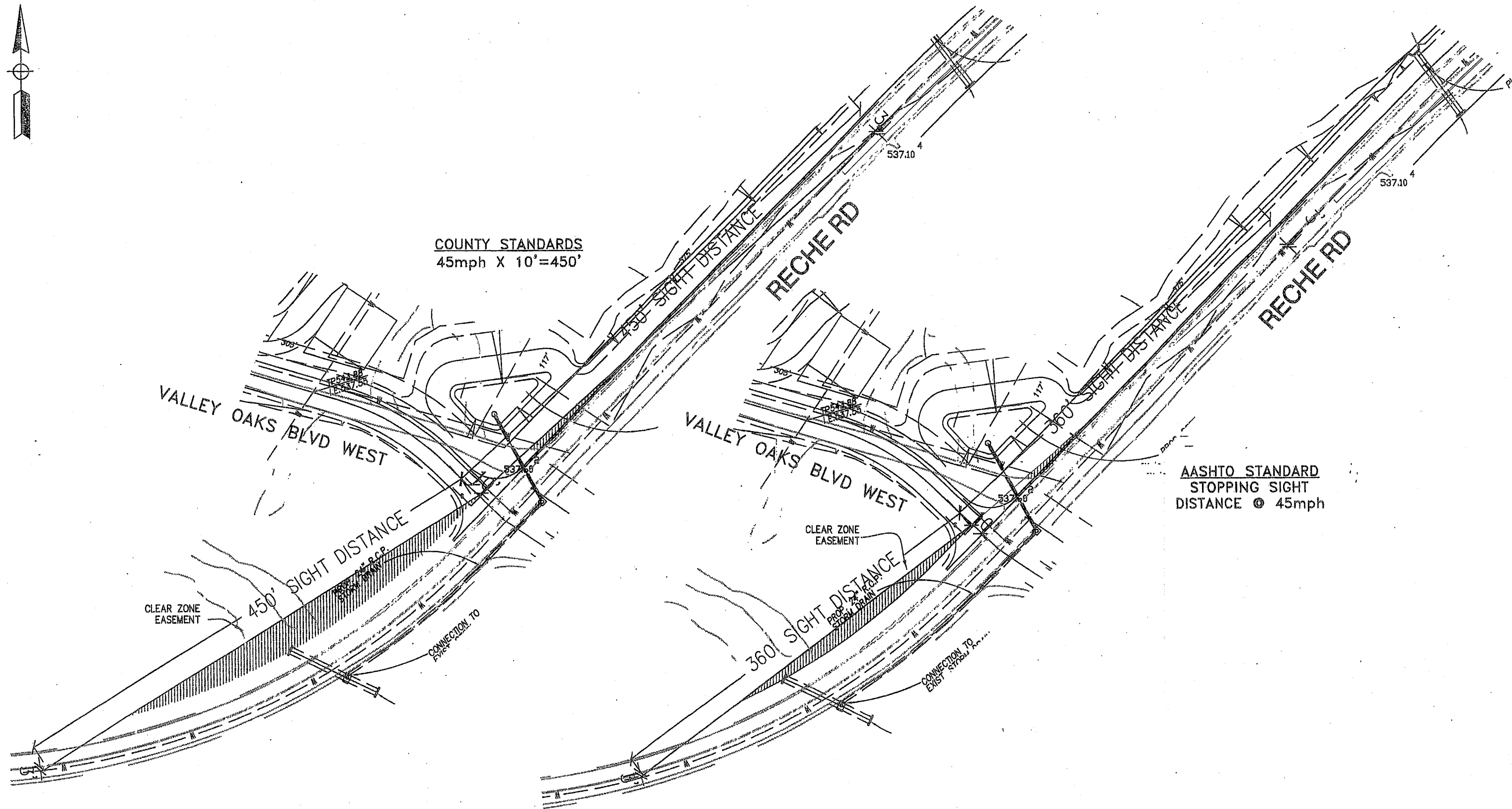
Darnell & Associates, Inc.

050702BB.dwg 8-28-07

JLB/JLL



COUNTY STANDARDS
45mph X 10' = 450'



AASHTO STANDARD
STOPPING SIGHT
DISTANCE @ 45mph

Darnell & ASSOCIATES, INC.

050702BB.dwg 8-28-07 CDJ/JLB/JLL

FIGURE 10
CLEAR ZONE REQUIRMENTS AT VALLEY OAKS BOULEVARD
WEST / RECHE ROAD

The intersections were analyzed under cumulative conditions with and without the proposed project. The intersections' levels of service for cumulative conditions are summarized in Table 8. A copy of the Synchro analysis worksheets for near term cumulative without and with project conditions can be found in Appendix D and E, respectively.

As can be seen in Table 8, the westbound left approach at the E. Mission/Old Highway 395 intersection currently operates at LOS F during both AM and PM peak hour. The westbound right approach at the E. Mission/Old Highway 395 intersection operates at LOS E in the AM peak hour and at LOS F during PM peak hour under cumulative with proposed project conditions. The westbound through approach at East Mission/I-15 southbound intersection operates at LOS D and LOS F during AM and PM peak hour, respectively under cumulative with and without project conditions. The westbound right approach at the intersection operates at LOS F during both the peak hours under cumulative with and without project conditions.

The East Mission/I-15 northbound ramp intersection operates at LOS F during both peak hours under cumulative. Based on the County of San Diego's significance thresholds, if the project contributes any traffic to an intersection that is operating under failure conditions then it is a portion of the cumulative impact. Thus, the project is part of a significant cumulative impact on the E. Mission Road/Old Highway 395, E. Mission Road/I-15 Southbound Ramp, and E Mission Road/I-15 Northbound Ramp intersections. See Section VI for a summary of the projects mitigation requirements.

Table 8 - Cumulative Intersection Level of Service Summary

Intersection	Traffic Control	Critical Movement	Existing (A)				Cumulative w/o Project (B)				Cumulative With Project (C)				Cumulative Contribution ⁽¹⁾ (C) - (A)				Project's Contribution ⁽²⁾ (C) - (B)			
			AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Δ Delay	Δ Delay	Cumulative Impact ⁽³⁾	Cumulative Impact ⁽³⁾	Δ Delay	Δ Delay	Cumulative Considerable ⁽⁴⁾ ?	Cumulative Considerable ⁽⁴⁾ ?
E Mission (E-W) @ Hwy 395 (N-S)	OWSC	WBL	672.4	F	ERR	F	ERR	F	ERR	F	ERR	F	ERR	F	-	-	-	-	0.0	24.6	YES	YES
		WBR	23.2	C	19.6	C	43.7	E	27.7	D	43.7	E	52.3	F	20.5	32.7	YES	YES	0.0	13.1	YES	YES
		NBT	9.2	A	14.1	B	10.0	A	17.4	C	10.0	A	30.5	D	0.8	16.4			0.0	5.0		
		WBT	22.3	C	51.9	F	30.5	D	97.4	F	30.6	D	102.4	F	8.3	50.5			0.1	7.9		
E Mission (E-W) @ I-15 SB Ramps (N-S)	OWSC	WBR	36.0	E	28.3	D	101.8	F	83.3	F	102.4	F	91.2	F	66.4	62.9	YES	YES	0.6	0.2	YES	YES
		EBR	9.6	A	12.7	B	10.4	B	15.3	C	10.4	B	15.5	C	0.8	2.8			0.0	0.0		
E Mission (E-W) @ I-15 NB Ramps (N-S)	SIG.	EB	13.6	B	58.6	E	12.4	B	122.6	F	12.4	B	122.6	F	(1.2)	63.4	YES	YES	0.0	0.0	YES	YES

Delay is measured in seconds of delay per vehicle; Δ Delay = Change in delay; LOS = Level of Service; N/A = Not Applicable because intersection operates at LOS D or better. Int=Intersection; EBR=Eastbound Right; EBT=Eastbound Through; EBL=Eastbound Left; WBT=Westbound Through; WBL=Westbound Left; WBR=Westbound Right; NBT=Northbound Through; SBL=Southbound Left; TWSC=Two Way Stop Controlled; OWSC=One-Way Stop Controlled; AWSC=All Way Stop Controlled; SIG=Signalized; ERR=Error in calculating in Synchro

Significance is based on County of San Diego's *Guidelines for Determining Significance*,
 > 15 min = Delay exceeds 15 minutes (1,800 seconds);
 (2) The incremental change in conditions associated with the proposed project (i.e. the difference between near term cumulative with project and existing conditions)
 (3) Cumulative Impacts are those impacts associated with the addition of all cumulative approved/pending projects including the proposed project
 (4) Project Impacts assess whether the project traffic itself is a considerable portion of the total cumulative impacts

SECTION V - PROJECT ACCESS, SIGHT DISTANCE, & ON-SITE CIRCULATION

PROJECT ACCESS

As illustrated in Figure 2 located in Section I, the project proposes to provide access to 15 single-family estate residential lots off Valley Oak Boulevard. The access road (Keystone Oaks Road) will be designed to provide one lane of ingress and one lane of egress. As shown in Table 9, the westbound approach at the project access will operate at LOS A under existing plus project conditions. The remaining 3 new single-family estate residential lots are proposed to have individual driveways off Ranger Road. Due to the low volume of traffic on Valley Oak Boulevard and Ranger Road (less than 300 ADT), the conflicting turn volumes at the project access roads will be light. The access to the existing residential unit located on Lot 19 will not be altered with the development of the project. Thus, all the access roads are expected to operate at an acceptable level of service without the addition of acceleration/deceleration lanes.

Per County of San Diego Public Road Standards, a non-circulation element road shall have a minimum of 200 feet (200') spacing between intersections. The proposed project access meets the County of San Diego Public Road Standards with 414 feet (414') spacing from the intersection of Reche Road/Valley Oaks Boulevard/Keystone Oaks Road.

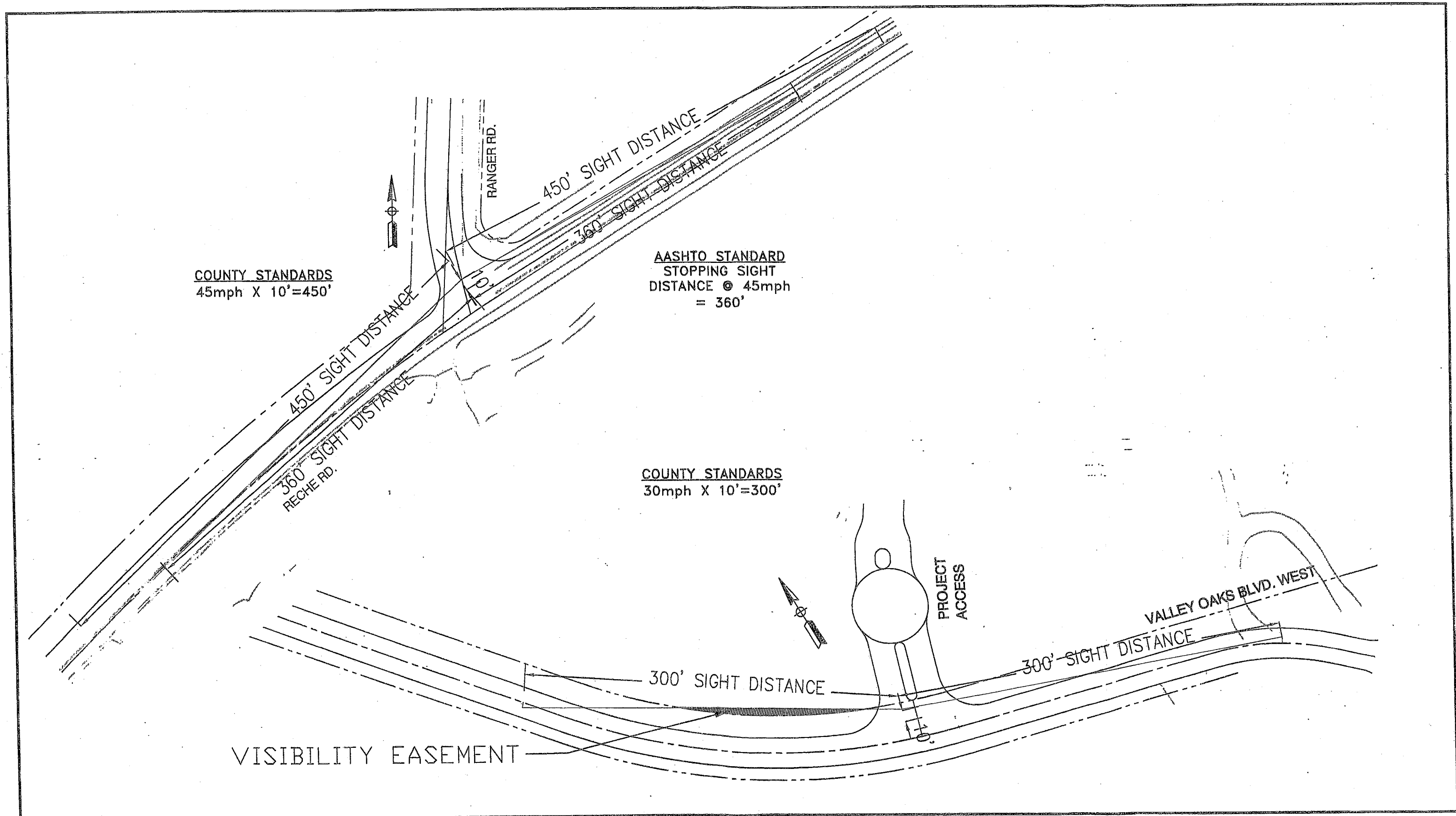
Table 9 - Project Access Level of Service Summary					
Intersection	Critical Movement	Existing + Project			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Valley Oaks Boulevard West / Keystone Oaks Road (OWSC)	WB	8.6	A	8.6	A
Delay is measured in seconds per vehicle; LOS= Level of Service; OWSC = One Way Stop Controlled; NB = Northbound Approach					

Appendix F provides the Synchro worksheets for project access analysis.

Since Reche Road is a Circulation Element Roadway, and Valley Oaks Boulevard, Ranger Road, and the project access points would be considered non-circulation element roadways, the minimum distance between intersections along Reche Road as shown in the Public Road Standards for the County of San Diego Section 6.1.C.2, is 300 feet. Since Ranger Road is a non-circulation element roadway, the county of San Diego Public Road Standards (Section 6.1.C.1) requires an intersection spacing of 200 feet. Copies of excerpts from the County's Public Road Standards are provided in Appendix A. Figure 9 shows the spacing of intersections along Reche Road. Review of Figure 9 shows that the spacing conforms to the County's standards.

SIGHT DISTANCE

Darnell & Associates, Inc. has reviewed the adequacy of sight distance at the Reche Road/Valley Oaks Boulevard West intersection. In order to provide adequate sight distance at the intersection, a clear zone easement will be required. Based on the County of San Diego's Public Road Standards and a posted speed limit of 45 miles per hour, a minimum corner sight distance of 450 feet is required. (It should be noted that based on the County Circulation Element, Reche Road is classified as a Rural Collector with a design speed of 40 miles per hour.) Per the American Association of State Highway and Transportation Officials (AASHTO) stopping sight distance requirements for a speed of 45 mph, a minimum stopping sight distance of 360 feet is required. Figure 10 provides an illustration of the clear zone easements required to provide 450 feet and 360 feet of sight distance at the Reche Road/Valley Oaks Boulevard West intersection.



Darnell & ASSOCIATES, INC.

050702CC.dwg 8-28-07 SN/JLB/JLL

FIGURE 11

CLEAR ZONE REQUIREMENTS AT RANGER & RECHE
AND VALLEY OAKS BLVD WEST AT THE PROJECT ACCESS

A clear zone easement will also be required at the Reche Road/Ranger Road intersection in order to provide adequate sight distance. Figure 11 provides an illustration of the clear zone easements required to provide the 450 feet of sight distance required to meet the County of San Diego's corner sight distance requirements. Figure 10 also illustrates the clear zone easements required to provide the 360 feet of sight distance required to meet ASSHTO's stopping sight distance requirements.

The clear zone easements at the Reche Road/Valley Oaks Boulevard West and Reche Road/Ranger Road intersections will need to be maintained such that with the exception of mature tree trunks, all foliage is no higher than two feet (2') and no lower than seven feet (7') high. The Civil Engineer for the project, will need to verify that there are no vertical obstruction to the sight due to the natural grade as measured from a driver's viewpoint of 3.5 feet and an object height of 4.25 feet.

Figure 10 also provides an illustration of the line of sight at the project access at Valley Oaks Boulevard West/Keystone Oaks Road intersection. Once grading for the site is completed, the project's Civil Engineer evaluated the sight distance at the Valley Oaks Boulevard West/Keystone Oaks Road (project access) intersection for conformance to the County of San Diego standards.

ON-SITE CIRCULATION

As currently designed, the project site will be divided into two sections. The western section of the project consists of 15 single-family estate residential lots with the primary access being provided via one access point on Valley Oaks Boulevard West. The project access road (Keystone Oaks Road) consists of an 18-foot wide egress lane and an 18-foot wide ingress lane. The Keystone Oaks Road ends in a cul-de-sac (42 feet radii) north of the project site. The dimensions of project access road and cul-de-sac conform to the San Diego County Private Road Standards. An emergency access road is also proposed along the northern end of the project site off Valley Oaks Boulevard West. The eastern section of the project consists of 3 single-family estate residential lots with individual driveways off Ranger Road.

The County asked that the developer to address the feasibility of connecting Valley Oaks Boulevard West to Yucca Road. The project is not proposing to construct this segment of Valley Oaks Boulevard West; however, the proposed project has been designed to not prevent Valley Oaks Boulevard West from being extended to the north to connect with Yucca Road if so desired in the future. As currently designed, the developer will construct a hammerhead at the terminus of Valley Oaks Boulevard West to provide turn-around capability.

LEFT TURN LANES AT VALLEY OAKS BOULEVARD WEST/RECHE ROAD

Per the County's request, Darnell & Associates, Inc. has evaluated the need for a left turn pocket at the Reche Road/Valley Oaks Boulevard West intersection. The existing traffic counts found that there are 180 southbound daily trips on Valley Oaks Boulevard West south of Reche Road. Based on the existing AM/PM peak hour turn counts at the intersection, approximately 66%, or 119 daily trips are currently turning left from westbound Reche Road. The County generally does not require that a left turn pocket be installed until either the daily left turn volume exceeds 300 vehicles and/or there is a LOS or safety concern. As was discussed in Section IV, all critical movements at the Valley Oaks Boulevard West/Reche Road intersection will operate at LOS C or better without the addition of a westbound left turn lane. Therefore, the installation of a westbound left turn lane at the Valley Oaks Boulevard West/Reche Road intersection is not required.

The existing traffic counts found that there are 12 northbound daily trips on Valley Oaks Boulevard West north of Reche Road. Based on the existing AM/PM peak hour turn counts at the intersection, approximately 75% or 9 daily trips are currently turning left from eastbound Reche Road. The proposed project is expected to add an additional 50 daily trips from eastbound Reche Road to northbound Valley Oaks Boulevard West thus increasing the total eastbound left turn volume to 59 daily trips. The County generally does not require that a left turn pocket be installed until either the daily left turn volume exceeds 300 vehicles and/or there is a LOS or safety concern. As was discussed in Section IV, all critical movements at the Valley Oaks Boulevard West/Reche Road intersection will operate at LOS C or better without the addition of an eastbound left turn lane. Therefore, the installation of an eastbound left turn lane at the Valley Oaks Boulevard West/Reche Road intersection is not required.

Further as previously discussed after grading on the site and with maintenance of the clear zone adequate sight distance can be achieved at the Valley Oaks Boulevard West/ Reche Road intersection. Thus neither eastbound or westbound left turn pockets will be required at the Valley Oaks Boulevard West/ Reche Road intersection based on a sight distance concern.

SECTION VI - PROJECT MITIGATION

ROADWAY SEGMENTS

Direct Impacts

- The proposed project does not have any significant direct roadway segment impacts. Thus mitigation by the proposed project is not required.

Cumulative Impacts

- To mitigate the project's cumulative roadway segment impacts, the developer will pay the Traffic Impact Fees as discussed below.
- The proposed project, will however, be part of significant cumulative impacts to the roadway segments and intersections. The project is part of the cumulative impact on the Interstate 15 Northbound and Southbound Ramps at Mission Road. The Interstate 15 Northbound and Southbound Ramps at Mission Road are not included in the County of San Diego's Transportation Impact Fee (TIF) program, however, the TIF does include improving the segment of Mission Road between Old Highway 395 (west) and the I-15 Southbound Ramps to Prime Arterial standards, improving the segment of Mission Road between the I-15 Southbound Ramps and the I-15 Northbound Ramps to Collector Road standards, and improving the segment of Mission Road between the I-15 Northbound Ramps and Old Highway 395 (east) to Collector Road standards. These improvements included in the TIF program will allow Mission Road at the I-15 Southbound Ramp to be striped to provide one (1) eastbound through lane, one eastbound through-right lane, one westbound left turn lane and one westbound through lane. At the Northbound Ramp, the improvements included in the TIF will allow Mission Road to be striped to provide two (2) eastbound left turn lanes, one (1) eastbound through lane, and one (1) westbound through-right turn lane. Providing two (2) eastbound through lanes from eastbound Mission Road onto northbound I-15 will require the widening of the I-15 northbound on ramp. It should be noted that the County's TIF program does not include the widening of the ramp. To mitigate the project's cumulative impacts, the developer will pay the County of San Diego Traffic Impact Fees as discussed in Section VI and pay its fair share of the widening of the northbound on-ramp to accommodate the two eastbound left turn lanes on Mission Avenue at the I-15 northbound on-off ramp.
- To Mitigate the projects roadway segments cumulative impacts at the I-15/Mission Road interchange the developer shall agree that prior to approval if the final map, the developer will either: 1) pay the additional Transportation Impact Fee (TIF) associated with freeway ramps as adopted by the Board of Supervisors to include improvements to E. Mission Road/I-15 interchange to the satisfaction of the Director of Public Works. (The County's TIF program does not currently include I-15/ East Mission Road Interchange. There is no Guarantee when or if the Board of Supervisors will adopt these ramps into the TIF, so there is no guarantee paying into TIF will be an option for these freeway ramps. Also, if the I-15/East Mission Road improvements currently unknown and (could be very high); or 2) Construct Improvements to East Mission Road/I-15 interchange in proportion to TM 5449 impacts to these facilities to the satisfaction of the Director of Public Works and Caltrans.

INTERSECTIONS

Direct Impacts

- The proposed project does not have any significant direct intersection impacts. Thus, mitigation by the proposed project is not required.

Cumulative Impacts

- To Mitigate the projects intersections cumulative impacts at the I-15/Mission Road interchange the developer shall agree that prior to approval if the final map, the developer will either: 1) pay the additional Transportation Impact Fee (TIF) associated with freeway ramps as adopted by the Board of Supervisors to include improvements to E. Mission Road/I-15 interchange to the satisfaction of the Director of Public Works. (The County's TIF program does not currently include I-15/ East Mission Road Interchange. There is no Guarantee when or if the Board of Supervisors will adopt these ramps into the TIF, so there is no guarantee paying into TIF will be an option for these freeway ramps. Also, if the I-15/East Mission Road improvements currently unknown and (could be very high); or 2) Construct Improvements to East Mission Road/I-15 interchange in proportion to TM 5449 impacts to these facilities to the satisfaction of the Director of Public Works and Caltrans.
- ~~To mitigate the project's cumulative intersection impacts, the developer will pay the Traffic Impact Fees as discussed below and pay its fair share of the widening of the northbound I-15 on ramp at Mission Avenue to accommodate the two (2) eastbound left turn lanes on Mission Avenue at the I-15 northbound on-off ramp.~~

PROJECT FRONTAGE IMPROVEMENTS

- As part of the development of the project, the developer will need to construct frontage improvements along Valley Oaks Boulevard West, Ranger Road, and Reche Road.
- The clear zone easements at the Reche Road/Valley Oaks Boulevard West and Reche Road/Ranger Road intersections will need to be maintained such that with the exception of mature tree trunks, all foliage is no higher than two feet (2') and no lower than seven feet (7') high. The Civil Engineer for the project will need to verify that there are no vertical obstruction to the sight due to the natural grade as measured from a driver's viewpoint of 3.5 feet and an object height of 4.25 feet.

COUNTY OF SAN DIEGO TRAFFIC IMPACT FEE (TIF) PROGRAM

- The County Board of Supervisors adopted the County of San Diego Traffic Impact Fee (TIF) ordinance in April 2005. This fee covers roadway improvements in the Fallbrook area as well as more regional roadway improvements. The Traffic Impact Fee will be assessed at the time of issuance of building permits. Table 10 illustrates the calculation of the Traffic Impact Fee for the proposed development that will be required to pay to mitigate its potential cumulative impacts. The fees shown in Table 10 are for the development of the new 18 dwelling units (since the existing home on lot 19 will remain the TIF is not applicable to this lot). The rates shown in Table 10 are based on the rates that were last updated on February 8, 2007. It should be noted that the actual fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index. (A copy of the TIF Program Trip Generation Rates and the TIF Rates by Community Planning Areas are provided in Appendix A.)

Table 10 - Transportation Impact Fee Calculation for Fallbrook Oaks							
TIF Area	Land use	No. of Units	Unit	ADT	Unit	ADT/Unit	Total Fee
Fallbrook	Estate Residential	18	DU	11.64	210	\$937	\$196,770
(a) The Trip Rate Utilized for calculation of the TIF is adjusted to account for pass-by trips. DU = Dwelling Unit; Note: Actual Fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index.							

- To Mitigate the projects roadway segments and intersections cumulative impacts at the I-15/Mission Road interchange the developer shall agree that prior to approval if the final map, the developer will either: 1) pay the additional Transportation Impact Fee (TIF) associated with freeway ramps as adopted by the Board of Supervisors to include improvements to E. Mission Road/I-15 interchange to the satisfaction of the Director of Public Works. (The County's TIF program does not currently include I-15/ East Mission Road Interchange. There is no Guarantee when or if the Board of Supervisors will adopt these ramps into the TIF, so there is no guarantee paying into TIF will be an option for these freeway ramps. Also, if the I-15/East Mission Road improvements currently unknown and (could be very high); or 2) Construct Improvements to East Mission Road/I-15 interchange in proportion to TM 5449 impacts to these facilities to the satisfaction of the Director of Public Works and Caltrans.

SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS

- The developer proposes to subdivide a 27.2-acre parcel located at the northwest corner of Reche Road and Ranger Road in the Fallbrook Community of the County of San Diego into nineteen (19) lots for single-family residential development. An existing house on lot 19 will remain and eighteen (18) new single-family estate residential homes are proposed to be constructed on the remaining lots.
- The project consists of a General Plan Amendment (GPA), a Rezone, and a Tentative Map (TM). The GPA proposes to amend the existing land use designations of (6) Residential and (13) General Commercial to (2) Residential throughout the property. The Rezone proposes to remove the C36 (commercial) zoning that currently exists on the property and replace it with A70 (residential) with a minimum lot size of one (1) acre.
- Based on the existing general plan designation the project site would have a trip generation of 3,360 average daily trips, 164 AM peak hour trips, and 315 PM peak hour trips.
- Based on the existing zoning for the site, the subject property would have a trip generation of 2,344 average daily trips, 26 AM peak hour trips, and 213 PM peak hour trips.
- The proposed GPA and rezone would reduce the allowable trip generation on the project site to 324 average daily trips, 26 AM peak hour trips, and 32 PM peak hour trips. This is 3,036 fewer daily trips than what is allowed per the existing general plan designation (i.e. $3,360 - 324 = 3,036$) and 2,020 fewer daily trips than what is allowed per the existing zoning on the site (i.e. $2,344 - 324 = 2,020$).
- The project site with the current proposal to develop 18 new estate residential dwelling units and maintain the existing dwelling unit would generate 228 average daily trips, 18 AM peak hour trips and 23 PM peak hour trips. Since the existing dwelling unit on the site is currently vacant, the traffic generated by all 19 dwelling units on the project site was added to existing roadway network.
- The proposed project does not have any significant direct roadway or intersection impacts.
- To mitigate the project's cumulative impacts, the developer will pay the Traffic Impact Fees as discussed in Section VI.
- The proposed project, will however, be part of significant cumulative impacts to the roadway segments and intersections. The project has a cumulative impact on the Interstate 15 Northbound and Southbound Ramps at Mission Road. The Interstate 15 Northbound and Southbound Ramps at Mission Road are not included in the County of San Diego's Transportation Impact Fee (TIF) program, however, the TIF does include improving the segment of Mission Road between Old Highway 395 (west) and the I-15 Southbound Ramps to Prime Arterial standards, improving the segment of Mission Road between the I-15 Southbound Ramps and the I-15 Northbound Ramps to Collector Road standards, and improving the segment of Mission Road between the I-15 Northbound Ramps and Old Highway 395 (east) to Collector Road standards. These improvements included in the TIF program will allow Mission Road at the I-15 Southbound Ramp to be striped to provide one (1) eastbound through lane, one eastbound through-right lane, one westbound left turn lane and one westbound through lane. At the Northbound Ramp, the improvements included in the TIF will allow Mission Road to be striped to provide two (2) eastbound left turn lanes, one (1) eastbound through lane, and one (1) westbound through-right turn lane. Providing two (2) eastbound through lanes from eastbound Mission Road onto northbound I-15 will require the widening of the I-15 northbound on ramp. It should be noted that the County's adopted TIF program does not include the widening of the ramp. To Mitigate the projects roadway segments and intersections cumulative impacts at the I-15/Mission Road interchange the developer shall agree that prior to approval if the final map, the developer will

either: 1) pay the additional Transportation Impact Fee (TIF) associated with freeway ramps as adopted by the Board of Supervisors to include improvements to E. Mission Road/I-15 interchange to the satisfaction of the Director of Public Works. (The County's TIF program does not currently include I-15/ East Mission Road Interchange. There is no Guarantee when or if the Board of Supervisors will adopt these ramps into the TIF, so there is no guarantee paying into TIF will be an option for these freeway ramps. Also, if the I-15/East Mission Road improvements currently unknown and (could be very high); or 2) Construct Improvements to East Mission Road/I-15 interchange in proportion to TM 5449 impacts to these facilities to the satisfaction of the Director of Public Works and Caltrans—To mitigate the project's cumulative impacts, the developer will pay the County of San Diego Traffic Impact Fees as discussed in Section VI and pay its fair share of the widening of the northbound on-ramp to accommodate the two eastbound left turn lanes on Mission Avenue at the I-15 northbound on-off ramps.

- The clear zone easements at the Reche Road/Valley Oaks Boulevard West and Reche Road/Ranger Road intersections will need to be maintained such that with the exception of mature tree trunks, all foliage is no higher than two feet (2') and no lower than seven feet (7') high. The Civil Engineer for the project, will need to verify that there are no vertical obstruction to the sight due to the natural grade as measured from a driver's viewpoint of 3.5 feet and an object height of 4.25 feet.
- Sight Distance clear zone requirements are depicted in Figure 10 and 11 for the Reche Road/Valley Oaks Boulevard West, Reche Road/Ranger Road, and Valley Oaks Boulevard/Keystone Oaks Road (Project Access) intersections respectively.